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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/094,052
Filing Date: June 09, 1998
Appellant(s): JONES, PETER W.J.

William J. Daley, Jr.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed Dec. 7, 2007 appealing from the Office action mailed May 4, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,929,055	JONES	5-1990
4,365,866	SOFTLY	12-1982
4,323,298	BRENNAN	4-1982

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

a) Claims 1, 4-5, 7, 11 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (U.S. Patent No. 4,929,055) in view of Softly (U.S. Patent No. 4,365,866).

Jones discloses an apparatus for use with an optical device such as a binocular device, a telescope, a periscope, a rifle scope, a night vision device or the like (see column 1). The apparatus disclosed by Jones is an improvement of the conventional art in which Jones teaches the use of a set of concentric circular vanes disposed in front of a lens surface of a lens assembly located within an optical device for the purpose of reducing the reflection of light incident on the lens reflecting surface of the lens assembly while still maintaining a substantially field of view for a user who makes an observation via the light passed through the vanes and the lens assembly (see column 2, for example). Each of the circular vanes has a first end disposed near the lens reflecting surface, and a second end disposed away from the first end. It is also noted that a combination of concentric circular vanes and radial vanes is disclosed by Jones as can be seen at column 5 and shown in fig. 9. While Jones does not clearly state the apparatus is mounted on a field goggle; however, such a feature is inherent from the Jones' teaching because at column 1 he states that the apparatus can be used by a person of a battlefield troop in a night time in the form of a night vision device. See Jones, columns 1 and 3-4 and figs. 1 and 8-9, for example. Jones

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also teaches that his optical apparatus has a length-to-width ratio which is equal to or different from the length-to-width ratio of the field of view (see columns 2-4, claims 1 and 13, for example).

Thus, the arrangement of a set of vanes disposed in front of a lens surface having a curved surface of an optical device for reduction light reflection incident on the lens surface so that the light reflected from such lens surface is essentially not viewable by an observer located distal from the second ends of the vanes and so that a user viewing through the lens assembly can observe the image corresponding to the wide field of view of the lens assembly. The only feature missing from the Jones reference is that he does not clearly teach that the first ends of the concentric circular vanes are spaced further apart from each other at a different distance than the second ends of the concentric circular vanes are spaced apart from each other as claimed in the present claims 1 and 15.

Regarding to the arrangement of the vanes in front of an optical element, in another embodiment disclosed in column 5 and shown in figure 10, Jones has suggested that the vanes are arranged in a non-parallel manner and in inclined angles different from 90 degrees with respect to the lens reflecting surface of an optical device. As a result of such an arrangement, the distance between two adjacent first ends of the vanes which ends located closer to the optical element is different from the distance defined between two adjacent second ends of the vanes located further from the optical element. While in the embodiment provided at column 5, John discloses the use of the inclined vanes in front of device

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having non-magnification feature such as a mirror or windshield; however, the inclined vanes are also used in front of other optical device having magnification as stated by John in column 6, lines 9-15 thereof "Structures in accordance with the inventions can be...the like." See also column 1.

Regarding to the feature that the first ends of the vanes are further apart from each other than the second ends of the vanes are spaced apart as claimed in claim 1, it is noted that such an arrangement of the vanes as claimed is merely that of a preferred embodiment and no criticality has been disclosed. The support for this conclusion is found in the present specification in which it suggests a variation of an arrangement of the vanes. In one variation of arrangement of the vanes, the distance between two adjacent first ends is smaller than the distance between two adjacent second ends. See specification at pages 3 and 5-6 and figs. 6-7 and 10-11, for example.

Further, it is noted that the use of an array of vanes disposed in front of a lens surface having a curved shape for the purpose of reduction light reflections incident on the lens surface wherein the distance between two adjacent first ends near the lens surface of a vane is larger than the distance between two adjacent second ends farther from the lens surface of the vane for the purpose of reduction the light reflection incident on the lens surface is suggested to one skilled in the art as can be seen in the system provided by Softy. In particular, Softy discloses the use of an array of vanes (21) in front of a curved screen (11) and teaches that the vanes are arranged in a manner that the first ends near the

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curved screen of the vanes is spaced further apart from each other at a different distance than the second ends disposed farther from the curved screen of the vanes are spaced apart from each other. See columns 2-3 and figs. 2-4, in particular, at column 2, lines 52-57 which states: "In a television studio most of the ambient light falls towards the monitor screen from an upward direction rather from the side, and so the horizontally extending slats 21 are suitably positioned to intercept this light which would otherwise be reflected from the screen and impair the quality of the image."

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the apparatus having vanes disposed in front of a lens reflecting surface of an optical device as provided by Jones (column 5, lines 10-34) by rearranging the orientation of the vanes so that the distance between two adjacent first ends of the vanes is different from the distance defined between two adjacent second ends of the vanes and the distance between two adjacent first ends near the lens surface of the vanes is larger than the distance between two adjacent second ends farther from the lens surface of the vanes as suggested by Softy for the purpose of reducing the light reflection while still maintaining the wide field of view of the optical device.

b) Claim 13 is rejected under 35 USC 103(a) as being unpatentable over Jones in view of Softy as applied to claim 1 above, and further in view of Brennan (U.S. Patent No. 4,323,298).

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The combined product provided by Jones and Softly does not clearly disclose that the lens has a field of view of at least 40 degrees; however, a binocular device having a field of view of 60 degrees is known to one skilled in the art as can be seen in the binocular device provided by Brennan (see column 3 and fig. 5). Thus, it would have been obvious to one skilled in the art at the time the invention was made to use of the anti-reflection with non-parallel vanes as suggested by Jones and Softly in a binocular device having a wide field of view such as the binocular provided by Brennan for the purpose of reducing reflections of light incident on a lens surface located behind the mentioned vanes in a binocular or telescope or goggles and simultaneously providing a wide field of view of at least 40 degrees for the user of such device.

(10) Response to Argument

Appellant's arguments filed on the appeal Brief of 12/7/2007, pages 12-37, have been fully considered but they are not persuasive for the following reasons.

a) Regarding to the rejections of claims 1, 4-5, 7, 11 and 14-15 under 35 U.S.C. 103(a) as being unpatentable over Jones (U.S. Patent No. 4,929,055) in view of Softly (U.S. Patent No. 4,365,866), appellant's arguments as provided in the Brief, pages 12-35, have been fully considered but they are not persuasive..

First, regarding to the appellant's arguments that the art of Jones and Softly does not disclose an optical lens assembly having a wide angle (wide?) field of view, see Brief, pages 15-16, the examiner offers the following opinions.

While Jones does not explicitly state that the lens assembly has a wide field of view, such a feature is readable from the teachings provided by Jones, the primary reference. It is noted that the optical device as provided by Jones is directed to a binocular, a telescope, a periscope, a rifle scope or the like, see column 1, lines 13-16 wherein the lens assembly of the optical device disposed in the front section of the device has a curved surface on its outermost lens surface, see figures 1-2 and the curvature of the outermost lens surface of the lens assembly defines a field of view. It is noted that while the present claims recites a wide field of view, the present claims have not recited any specific limitation/structure of the lens assembly for support the term "wide" of the field of view. It is also noted that the term "wide", as claimed, is a relative term absent any reference used to make a comparison thus any outermost lens surface of an optical device inherently defines a field of view having a particular wide dimension. In that aspect, the lens assembly disposed in the optical device as provided by Jones defines a field of view having a particular "wide" dimension.

Second, regarding to the appellant's arguments that the device as disclosed in column 5 and shown in fig. 10 of the Jones' Patent is a non-optical device, see Brief, page 17. The examiner is of opinion that the optical device as provided by Jones in column 5 and shown in fig. 10 is an optical device having zero magnification. Appellant should note that a mirror or a windshield is an optical device. The power or the magnification of an optical device such as mirror or lens (Note: windshield is a particular type of lens) is defined by the curvature of the entrance and exit surfaces of the optical device.

Regarding to the use of the vanes with an optical device having magnification or optical device having zero magnification, the appellant is respectfully invited to review the Jones patent, in particular, column 6, lines 9-15 in which Jones has clearly stated: "Structure in accordance with the invention can be relatively easily fabricated for use with the surfaces of many different types of optical devices or other reflective surfaces. Thus, in addition to use on binoculars, telescopes, periscopes and the like, the structure can be used on vehicular windshields, head lamps, or side view mirrors, or the like." As clearly stated in the mentioned sentence, the vanes as taught by Jones can be used in an optical device having magnification or optical device having zero magnification.

Third, In response to appellant's argument that the references fail to show certain features of appellant's invention, see Brief, page 20, it is noted that the features upon which appellant relies (i.e., light loss, vignette problems, formation of image by lens, ...) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Fourth, regarding to the appellant's arguments against the references individually, see Brief, pages 21-23, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Fifth, in response to appellant's argument that there is no suggestion to combine the references, see Brief, pages 20-37, the examiner recognizes that obviousness can

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only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the art of John contains almost features recited in the present claim except the orientation of the vanes, and the art of Softly discloses the use of a plurality of slats located in front of an optical lens having a curved lens surface which slabs are adjustable in their orientation for the purpose of reducing the light reflection. One skilled in the art will modify the orientation of the vanes in the system of Jones by the suggestion provided by Softly because 1) Jones discloses that the orientation of the vanes is changeable; and 2) Softly discloses that the slabs are oriented so that the first ends of the slabs near the lens surfaces are spaced further apart from each other at a different distance than the second ends of the slabs disposed farther from the curved lens surface are spaced apart from each other.

Appellant is respectfully invited to review the art of John in column 5, lines 35+ in which John clearly teaches: "The tubular...used. In some applications, it may be desirable to arrange them so that they are at other than a 90° angle with respect to the reflective surface in question." . To support for the teaching, John disclosed one example in which the vanes are arranged/oriented in a non-parallel manner in which the angle defined between a particular vane and the lens surface is different from 90

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degrees as can be seen in the embodiment disclosed in column 5, lines 41+ and shown in fig. 10.

It is noted while John discloses just one example, see column 5 and fig. 10, concerning the arrangement/orientation of the vanes in which the spaces between two adjacent vanes (31) at the second ends located further from the windshield (32) is larger than the space between the two adjacent vanes at the first ends located closer to the windshield; however, there is not any reason stated by John for not arrangement/orientation of the vanes so that the space between two adjacent vanes at the second ends is smaller than the space between the two adjacent vanes at the first ends. Accordingly, it would appear that one skilled in the art would have recognized that the orientation of the vanes so that the space between two adjacent vanes in the second ends is larger than the space between two adjacent vanes in the first ends and the orientation of the vanes so that the space between two adjacent vanes in the second ends is smaller than the space between two adjacent vanes in the first ends would have been equally obvious.

Softly discloses a system positioned in front of a curved optical reflecting surface and teaches the slabs formed the system be adjustable in their orientation for the purpose of controlling the disadvantage of the light reflection. While the observer is located in front of the lens and the system; however, the examiner has not suggested to try to bodily incorporate the two structures into one. The feature of variable orientation of slabs disposed in front of a reflecting surface provided by Softly is the suggestion which one skilled in the art will utilize to modify/improve the system of Jones for the

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purpose of increasing the ability of reduction of light refraction. Appellant should note that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

b) Regarding to the rejection of claim 13 under 35 U.S.C. 103(a) as being unpatentable over Jones (U.S. Patent No. 4,929,055) in view of Softly (U.S. Patent No. 4,365,866) and Brennan (U.S. Patent No. 4,323,298), appellant's arguments as provided in the Brief, pages 36-37, have been fully considered but they are not persuasive..

Regarding to the rejection of claim 13, it is noted that the brief does not provided by specific arguments, thus the claim is still rejected for the same reasons as set forth in the final office action and repeated in the Examiner Answer.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Thong Nguyen/
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